

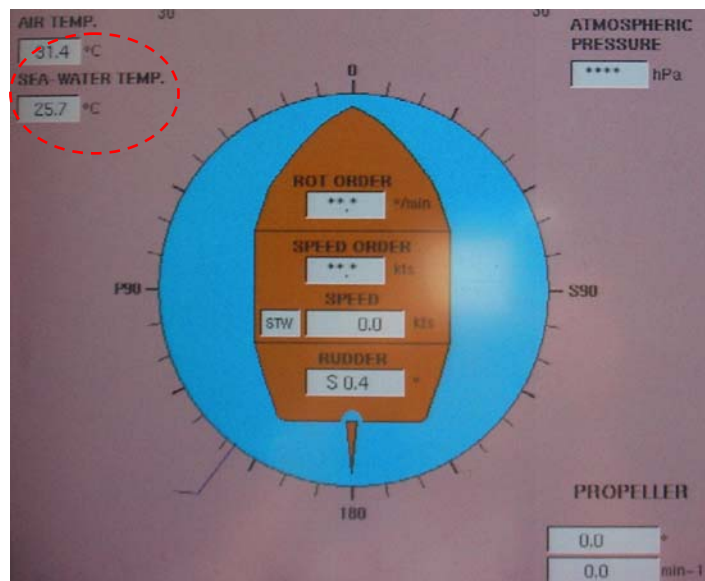
Observing weather on board – sea surface temperature

Written by Wu Chung-wai September 2011

In the old days, ship weather observers used a bucket to collect a sample of sea water and measured the water temperature with a thermometer for reporting sea surface temperatures. Nowadays, hull contact sensor or condenser intake setup is normally used on board Hong Kong Voluntary Observing Ship (HKVOS) to make direct measurement of the sea surface temperature. In order to ensure that the sensor is under water, the hull contact sensor or the condenser intake setup is installed around 10 m below the maximum summer load line of HKVOS.

Sea surface temperature is an important meteorological parameter for weather and climate prediction. Since a higher sea surface temperature provides tropical cyclone with higher ocean thermal energy, sea surface temperature is one of the major factors which affect the genesis of a tropical cyclone over the oceans. Furthermore, the sea surface temperature anomaly over the central and eastern equatorial Pacific Ocean may result in the so called El Niño or La Niña event which will affect the atmospheric circulation worldwide and regional climate in many parts of the world.

The sea surface temperature should therefore be very carefully measured and read to 0.1°C. Ship masters are welcome to contact our Port Meteorological Officer should there be any doubts about the sea surface temperatures reported.



Sea surface temperature measured by condenser intake setup (left) is shown on the monitor of a HKVOS (right).